

12 is activated by either a host computer 24 or an x-ray controller 25, as will be understood by one skilled in the art. The x-ray source 12 sends the x-ray flux 17 through an object 18 on a moveable table 27 controlled by a table control device 29 acting in response to signals from the host computer 24, as will be understood by one skilled in the art.

**In The Claims:**

Please amend the claims as follows:

1. (Amended) An imaging system comprising:

a gantry;

an x-ray source coupled to said gantry, said x-ray source adapted to generate an x-ray flux, wherein a portion of said x-ray flux is adapted to become scatter radiation;

a first scatter detector coupled to said gantry, said first scatter detector adapted to receive said scatter radiation, said scatter detector further adapted to generate a first scatter signal in response to said scatter radiation; and

a host computer adapted to receive said scatter signal and generate therefrom an image.

2. (Original) The system of claim 1, further comprising a CT detector coupled to said gantry, said CT detector adapted to generate a detector signal in response to said x-ray flux.

3. (Amended) The system of claim 1 ~~+~~ 2, wherein said first scatter detector is positioned substantially adjacent to said CT detector.

4. (Amended) The system of claim 1 2, wherein said first scatter detector is positioned substantially adjacent to said x-ray source.

5. (Amended) The system of claim 1 2, further comprising a second scatter detector coupled to said gantry.

6. (Original) The system of claim 5, wherein said first scatter detector is positioned on a first side of said CT detector and said second scatter detector is positioned on a second side of said CT detector.

7. (Original) The system of claim 5, wherein said first scatter detector and said second scatter detector are positioned on only one side of said CT detector.

8. (Original) The system of claim 1, wherein said x-ray source comprises an extended x-ray source.

9. (Amended) A method for data collection for an imaging system comprising:

activating an x-ray source;

generating an x-ray flux;

receiving scatter radiation from said x-ray flux in at least one scatter detector coupled to a rotating gantry;

generating a scatter signal in response to said x-ray flux; ~~and~~

receiving said scatter signal in a host computer; and

generating an image from said scatter signal.

10. (Original) The method of claim 9 further comprising generating a two dimensional image.

11. (Amended) A computed tomography system comprising:  
a gantry;  
an x-ray source coupled to said gantry, said x-ray source adapted to generate an x-ray flux;  
a CT detector coupled to said gantry, said CT detector adapted to generate a detector signal in response to said x-ray flux;  
a first scatter detector coupled to said gantry, said first scatter detector adapted to generate a first scatter signal in response to said x-ray flux; and  
a host computer adapted to receive said detector signal and said scatter signal and to generate an image from said scatter signal.

12. (Original) The system of claim 11, wherein said x-ray source comprises an extended area x-ray source.

13. (Original) The system of claim 11, wherein said first scatter detector is positioned substantially adjacent to said CT detector.

14. (Original) The system of claim 11, wherein said first scatter detector is positioned adjacent to said x-ray source.

15. (Original) The system of claim 11, further comprising a second scatter detector coupled to said gantry.

16. (Original) The system of claim 15, wherein said first scatter detector is positioned on a first side of said CT detector and said second scatter detector is positioned on a second side of said CT detector.

17. (Original) The system of claim 15, wherein said first scatter detector and said second scatter detector are positioned on only one side of said CT detector.